



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 23 2013

REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

200405



ACTION MEMORANDUM – RV2

SUBJECT: Action Memorandum for an Emergency Removal Action and Ceiling Increase at the Barth Smelting Corp. Site, Newark, Essex County, New Jersey

FROM: Kimberly Staiger, On-Scene Coordinator
Removal Action Branch

TO: Walter E. Muggan, Director
Emergency and Remedial Response Division

THRU: Joseph D. Rotola, Chief
Removal Action Branch

Site ID: A22L

I. PURPOSE

The purpose of this memorandum is to document the decision to initiate an emergency response action described herein for the Barth Smelting Corp. Site located in Newark, Essex County, New Jersey. The On-Scene Coordinator (“OSC”) requested and was granted verbal authorization pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”) to initiate a removal action. Authorization was granted by the Director of the Emergency and Remedial Response Division (“ERRD”) on May 9, 2013. This is the second removal action at this Site. A total project ceiling increase of \$15,000 was authorized, of which \$10,000 was for mitigation contracting for RV1. The funding increase requested for RV2 is \$50,000, of which \$35,000 was for mitigation contracting. This additional funding provides a total project ceiling of \$65,000, of which \$45,000 was for mitigation contracting.

II. SITE INFORMATION

A. Site Description

Site Name:	Barth Smelting Corp. Site
Superfund Site ID (“SSID”):	A22L
NRC Case Number:	NA
CERCLIS Number:	NJN008010373
Site Location:	Riverview Court, Essex County, New Jersey, 07105
Lat/Long:	40.7361892° / -74.1402096°
Potentially Responsible Party (“PRP”):	No PRPs have been noticed to date
NPL Status:	Not listed
Removal Start Date:	May 10, 2013

B. Site Background

Barth Smelting Corp. operated on Block 2442, Lots 10, 11, 12 from at least 1946 until approximately 1982, and produced brass and bronze ingots and also worked with non-ferrous metals. Prior operators include General Lead Batteries, a manufacturer of lead acid batteries, and the New Jersey Zinc Company, a former zinc smelter. Barth was listed as an unrecognized Battery Lead Smelter Site with a paper titled "Discovering Unrecognized Lead Smelting Sites by Historical Methods" written by William Eckel et al, and published in the American Journal of Public Health, April 2001, however several resources exist labeling Barth Smelting as a secondary copper smelting facility.

The New Jersey Zinc and Iron Company, also known as the Newark Zinc Works, formerly operated on the property now occupied by the Newark Housing Authority's Terrell Homes. The Zinc Works was one of the first commercial zinc oxide plants in the United States and operated on this location from 1848 to 1910. In 1946, the Millard E. Terrell Homes, a low-income family development with 275 units, was constructed on a portion of the property formerly occupied by the New Jersey Zinc and Iron Company.

A small recreational playground utilized by the Terrell Homes residents is located immediately adjacent the former Barth Smelting facility on the northeastern portion of the Terrell Homes adjacent a concrete wall situated on the property line. Soil samples were collected from the playground area of the Terrell Homes on December 3-4, 2012. Elevated levels of lead were found to be present in the surface soils (0-2' depth interval) of the playground and the residential properties exceeding the EPA residential soil screening level of 400 mg/kg. The average concentration of lead in the soils at the one inch depth is 1,127 mg/kg. Lead concentrations ranged from 103 mg/kg to 8,920 mg/kg, with the highest lead concentration detected in the western grassy area behind the dumpsters at the 12-18" depth interval. The highest concentration of lead detected in the top one inch of soil at this location is 6,030 mg/kg. In response to these findings, EPA installed a temporary fence around the playground area on February 13, 2013 and additional investigations were planned for the remainder of the Terrell Homes.

1. Removal site evaluation ("RSE")

EPA installed soil borings throughout the Terrell Homes property from March 29-April 1, 2013 to determine if historic operations conducted on and around this property had impacted the soils. A total of thirty soil borings were installed throughout the property. Each soil boring was completed to a depth of two feet. Soil samples were collected from each boring at the following depth intervals: 0 to 1 inches, 1 to 6 inches, 6 to 12 inches, 12 to 18 inches and 18 to 24 inches below ground surface ("bgs"). For the borings installed within the asphalted area, the 0 to 1 inch depth interval was not collected, since the asphalt was one inch thick. An additional six locations where bare soil was present were sampled to a depth of 6 inches. A hand auger was used to collect soil samples from depth intervals at 0 to 1 inch and 1 to 6 inches. All soil samples collected were submitted for laboratory analysis for Target Analyte List (TAL) Metals plus tin and mercury.

Elevated levels of lead which pose a significant threat to the local residents were found to be present in the surface soils (0-2' depth interval) within a grassy area immediately adjacent the Community Building. The Community Building serves as a recreational area for the residents and contains a water park area (sprinklers) for children and a basketball court. This area is utilized by residents year round and as a sprinkler park during warmer weather. The highest concentration of lead detected in the top one inch of soil at this location is 1,600 mg/kg.

On May 9, 2013 verbal authorization was received to conduct an emergency removal action to install a temporary chain link fence around the grassy area adjacent the Community Building and recreational area at the Terrell Homes. EPA met with representatives from the Newark Housing Authority ("NHA") on May 10, 2013 to discuss actions to be taken to restrict access to the grassy area adjacent the Community Building and recreational area. NHA indicated that they would install temporary construction fencing around the grassy areas as an interim measure to restrict access to the area until EPA could install a more permanent temporary fence.

2. Physical location and site characteristics

The Terrell Homes are located in a mixed residential/industrial neighborhood within the Ironbound Section of Newark, Essex County, New Jersey. The property was formerly home to the New Jersey Zinc and Iron Company from 1848 to 1910. The property is bounded to the west by the Passaic River and the Essex County Riverfront Park, to the east by Chapel Street, to the north by the former Barth Smelting Corp. property, and to the west by a large commercial property.

The grassy area with the elevated concentrations of lead within the surface soils (0-2' depth) is located immediately adjacent the property line of the Terrell Homes and 99 Chapel Street near the Community Building. The closest residential unit is located less than 5 feet from the grassy area.

3. Release or threatened release into the environment of a hazardous substance, pollutant, or contaminant

Lead concentrations have been detected exceeding the EPA residential soil screening level of 400 mg/kg within the top one inch of soil within a grassy area adjacent the Community Building and recreational area at the Terrell Homes. The highest concentration of lead detected in the top one inch of soil in the grassy area is 1,600 mg/kg. The statutory source for designation as a hazardous substance under CERCLA is also noted.

HAZARDOUS SUBSTANCE	STATUTORY SOURCE FOR DESIGNATION AS A HAZARDOUS SUBSTANCE UNDER CERCLA*
Lead	2,3

1. Clean Water Act, Section 311(b)(4)
2. Clean Water Act, Section 307(a)
3. Clean Air Act, Section 112
4. RCRA Section 3001

III. THREATS TO PUBLIC HEALTH, OR WELFARE, OR THE ENVIRONMENT

A. Nature of Actual or Threatened Release of Hazardous Substances, Pollutants or Contaminants

Direct contact with the elevated levels of lead in surface soil may occur through common outdoor activities that occur in the play area, or by tracking lead contaminated dirt inside the home. Contact with the lead contaminated soils may present a health risk to residents, particularly young children.

Lead is a cumulative poison where increasing amounts can build up in the body eventually reaching a point where symptoms and disability occur. Particularly sensitive populations are women of child-bearing age, due to the fetal transfer of lead, and children. Cognitive deficits are associated with fetal and childhood exposure to lead. An increase in blood pressure is the most sensitive adverse health effect from lead exposure in adults. Effects on the kidney, nervous system and heme-forming elements are associated with increasing blood lead concentrations, both in children and adults. Other symptoms include: decreased physical fitness, fatigue, sleep disturbance, aching bones, abdominal pains, and decreased appetite.

The Department of Health and Human Services ("DHHS") has determined that lead and lead compounds are reasonably anticipated to be human carcinogens based on limited evidence from studies in humans and sufficient evidence from animal studies, and the EPA has determined that lead is a probable human carcinogen.

B. Check Applicable Factors (From 40 CFR 300.415) Which Were Considered in Determining the Appropriateness of a Removal Action

- ☒ Actual or potential exposure to nearby human populations, animals or the food chain from hazardous substances, or pollutants, or contaminants [300.415(b)(2)(i)].
- ☐ Actual or potential contamination of drinking water supplies or sensitive ecosystems [300.415(b)(2)(ii)].
- ☐ Hazardous substances or pollutants or contaminants in drums, barrels, tanks, or other bulk storage containers, that pose a threat of release [300.415(b)(2)(iii)].
- ☒ High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate [300.415(b)(2)(iv)].

- _____ Weather conditions that may cause hazardous substances or pollutants to migrate or to be released [300.415(b)(2)(v)].
- _____ Threat of fire or explosion [300.415(b)(2)(vi)].
- X The availability of other appropriate federal or State response mechanisms to respond to the release [300.415(b)(2)(vii)].
- _____ Other situations or factors that may pose threats to the public health or welfare of the United States or the environment [300.415(b)(2)(viii)].

IV. ENDANGERMENT DETERMINATION UNDER CERCLA SECTION 106: HAZARDOUS SUBSTANCES

Actual or threatened releases of hazardous substances from the Site may present an imminent and substantial endangerment to public health, or welfare, or the environment.

V. SELECTED REMOVAL ACTION AND ESTIMATED COSTS

A. Situation and Removal Activities to Date

1. Current situation

EPA activated a Region 2 Emergency and Rapid Response Services (“ERRS”) contractor on May 10, 2013 to assist in removal operations. Verbal authorization of funding was granted by the Director of the ERRD for a total project ceiling of \$50,000 to begin emergency removal activities. ERRS personnel began operations at the Terrell Homes property on May 13, 2013. Verbal access to conduct the removal action was granted by the property owner.

1. Removal activities, to date

EPA mobilized to the Terrell Homes with ERRS on May 13, 2013 to install the 6’ high fencing and restrict access to the grassy area adjacent the Community Building and recreation area within the northern portion of the property. This fencing is an extension of the original temporary fence placed around the playground area on February 21, 2013. All of the grassy areas on the northern boundary of the Terrell Homes have now been fenced off. A swing gate was installed on the fencing across the cement driveway to allow access for maintenance staff to receive deliveries to the basement of the building at 35 Riverview Court. A key to the chained gate was provided to the NHA property manager and the supervisor of the maintenance staff at Terrell Homes. Signs were placed on the fencing warning residents to keep out of the fenced area. There are no other current or on-going removal activities being taken by other agencies or private parties.

3. Enforcement

EPA has not identified Potentially Responsible Parties (“PRPs”) and is currently conducting a PRP search. The OSC will work with enforcement staff and the Office of Regional Counsel in an attempt to identify all viable PRPs to recover costs associated with this removal action.

B. Planned Removal Actions

1. Proposed action description

EPA activated the ERRS contractor who installed temporary chain link fencing and signs around the grassy area adjacent the Community Building to restrict access.

2. Contribution to remedial performance

The proposed actions will, to the extent practicable, contribute to the efficient performance of any long-term remedial action at the Site. However, at this time, a long-term remedial action is not anticipated.

3. Applicable or Relevant and Appropriate Requirements (“ARARs”)

Removal actions conducted under CERCLA are required to attain ARARs to the extent practicable. In determining whether compliance with ARARs is practicable, the OSC considered appropriate factors, including the urgency of the situation and the scope of the removal action conducted.

4. Project schedule

The action of stabilizing the hazardous material was initiated on May 10, 2013, and completed on May 13, 2013.

C. Estimated Costs*

	RV1	RV2	New Ceiling
Contractor costs (ERRS, Includes 20% Contingency)	\$10,000	\$35,000	\$45,000
Other Extramural Costs (Strike Team, other Fed Agencies, Removal Support Team)	\$5,000	\$15,000	\$20,000
Total Removal Project Ceiling	\$15,000	\$50,000	\$65,000

*EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

A delay in action or no action at the Site would increase the actual or potential threats to the public health and/or the environment.

VII. OUTSTANDING POLICY ISSUES

None.

VIII. APPROVALS

This decision document represents the selected removal action for the Site, developed in accordance with CERCLA as amended, and is not inconsistent with the National Contingency Plan ("NCP"). This decision is based on the administrative record for the Site.

Conditions at the Site meet the NCP Section 300.415(b) criteria for an emergency removal action. This document confirms the verbal authorization for the removal action conducted at the Barth Smelting Corp. Site. The total project ceiling increase is \$50,000, of which \$35,000 is for mitigation contracting. This amount will be funded from the Regional Removal Allowance.

Please indicate your formal approval of this request for a removal action at the Barth Smelting Corp. Site, as per current Delegation of Authority, by signing below.


Walter E. Mugdan, Director
Emergency and Remedial Response Division

7/23/13
Date

cc: W. Mugdan, ERRD-D
J. LaPadula, ERRD-DD
J. Rotola, ERRD-RAB
E. Wilson, ERD-RAB
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